

IN THE CLAIMS

Claim 1 (Previously Presented): A base station comprising:

a packet classification unit configured to classify packets received/transmitted from/to a plurality of mobile stations into a quantitative guarantee type packet having a request value that indicates quantitative value for communication quality or a relative guarantee type packet not having the request value that indicates quantitative value for communication quality;

a quantitative guarantee type buffer configured to store the quantitative guarantee type packet;

a relative guarantee type buffer configured to store the relative guarantee type packet;

a transmission order controller configured to control a transmission order of the packets for every classified quantitative guarantee type packet in the quantitative guarantee type buffer and every classified relative guarantee type packet in the relative guarantee type buffer; and

a radio resource assignment unit configured to assign radio resources to the quantitative guarantee type packet in the quantitative guarantee type buffer and the relative guarantee type packet in the relative guarantee type buffer, according to the transmission order controlled by the transmission order controller,

wherein if radio resources still remain after assignment to the quantitative guarantee type packet in the quantitative guarantee type buffer, the radio resource assignment unit assigns remaining radio resources to the relative guarantee type packet in the relative guarantee type buffer.

Claim 2 (Original): The base station of claim 1, wherein the transmission order controller gives priority to the quantitative guarantee type packet over the relative guarantee type packet, in the transmission order.

Claim 3 (Original): The base station of claim 1, wherein the transmission order controller controls the transmission order based on a quality of service class.

Claim 4 (Original): The base station of claim 1, wherein the transmission order controller controls the transmission order based on radio quality between the base station and the plurality of mobile stations.

Claim 5 (Original): The base station of claim 1, wherein the transmission order controller controls a transmission order of a plurality of quantitative guarantee type packets having same request value, such that communication quality for the request value becomes same, among a plurality of mobile stations receiving/transmitting the quantitative guarantee type packets.

Claim 6 (Original): The base station of claim 1, further comprising:
a measurement unit configured to measure communication quality for the request value, wherein

the transmission order controller compares the request value with a measured value by the measurement unit, and controls the transmission order based on a comparison result.

Claim 7 (Original): The base station of claim 1, further comprising:
a measurement unit configured to measure communication quality for the request value, wherein

the packet classification unit restrains storing the quantitative guarantee type packet in a transmission buffer for storing the packets, when a measured value by the measurement unit is more than the request value.

Claim 8 (Original): The base station of claim 1, wherein the transmission order controller controls the transmission order such that a number of the quantitative guarantee type packets transmitted in unit time becomes equal to a number of packets satisfying the request value.

Claim 9 (Canceled).

Claim 10 (Previously Presented): The base station of claim 1, wherein the radio resource assignment unit assigns the radio resources to the quantitative guarantee type packet based on the request value.

Claim 11 (Canceled).

Claim 12 (Previously Presented): The base station of claim 1, further comprising:
an attaching unit configured to attach the request value to a packet arrived from a core network, based on a quality of service class for the packet in the core network, wherein the packet classification unit classifies a packet having the request value attached thereto into the quantitative guarantee type packet, and classifies a packet not having a request value attached thereto into the relative guarantee type packet.

Claim 13 (Original): The base station of claim 1, further comprising:
a determination unit configured to determine a quality of service class in a core network for a packet, which has been received from a mobile station and is to be transmitted to the core network, based on whether the packet is the quantitative guarantee type packet or the relative guarantee type packet.

Claim 14 (Previously Presented): A radio communication system comprising:

a plurality of mobile stations; and

a base station comprising:

a packet classification unit configured to classify packets received/transmitted from/to the plurality of mobile stations into a quantitative guarantee type packet having a request value that indicates quantitative value for communication quality or a relative guarantee type packet not having the request value that indicates quantitative value for communication quality;

a quantitative guarantee type buffer configured to store the quantitative guarantee type packet;

a relative guarantee type buffer configured to store the relative guarantee type packet;

a transmission order controller configured to control a transmission order of the packets for every classified quantitative guarantee type packet in the quantitative guarantee type buffer and every classified relative guarantee type packet in the relative guarantee type buffer; and

a radio resource assignment unit configured to assign radio resources to the quantitative guarantee type packet in the quantitative guarantee type buffer and the relative guarantee type packet in the relative guarantee type buffer, according to the transmission order controlled by the transmission order controller;

wherein if radio resources still remain after assignment to the quantitative guarantee type packet in the quantitative guarantee type buffer, the radio resource assignment unit assigns remaining radio resources to the relative guarantee type packet in the relative guarantee type buffer.

Claim 15 (Previously Presented): A communication method comprising:
classifying packets received/transmitted from/to a plurality of mobile stations into a quantitative guarantee type packet having a request value that indicates quantitative value for communication quality or a relative guarantee type packet not having the request value that indicates quantitative value for communication quality;

controlling a transmission order of the packets for every classified quantitative guarantee type packet and every classified relative guarantee type packet by the base station;
and

assigning radio resources to the quantitative guarantee type packet and the relative guarantee type packet, according to the transmission order controlled in the controlling step,
wherein if radio resources still remain after assignment to the quantitative guarantee type packet in the quantitative guarantee type buffer, assigning, in the assigning step,
remaining radio resources to the relative guarantee type packet in the relative guarantee type buffer.

Claim 16 (Previously Presented): The base station of claim 1, wherein the packet classification unit classifies the packet into a quantitative guarantee type packet having a request value for communication quality that is not a QoS class.

Claim 17 (Previously Presented): The base station of claim 16, wherein the packet classification unit classifies the packets into a quantitative guarantee type packet having a request value for at least one of a specific quantity of at least one of a transfer speed, a transfer delay or jitter.

Claim 18 (Previously Presented): The base station of claim 14, wherein the packet classification unit classifies the packet into a quantitative guarantee type packet having a request value for communication quality that is not a QoS class.

Claim 19 (Previously Presented): The base station of claim 18, wherein the packet classification unit classifies the packets into a quantitative guarantee type packet having a request value for at least one of a specific quantity of at least one of a transfer speed, a transfer delay or jitter.

Claim 20 (Previously Presented): The method of claim 15, wherein the classifying comprises classifying a packet into the quantitative guarantee type packet having a request value for communication quality that is not a QoS class.

Claim 21 (Canceled).

Claim 22 (Previously Presented): The base station of claim 1, wherein if radio resources still remain after assignment to the relative guarantee type packets, the radio resource assignment unit assigns the further remaining radio resources to the quantitative guarantee type packets further remaining in the quantitative guarantee type buffer.

Claim 23 (Canceled).

Claim 24 (Previously Presented) The base station of claim 14, wherein if radio resources still remain after assignment to the relative guarantee type packets, the radio

resource assignment unit assigns the further remaining radio resources to the quantitative guarantee type packet further remaining in the quantitative guarantee type buffer.

Claim 25 (Canceled).

Claim 26 (Previously Presented): The method of claim 15 , wherein if radio resources still remain after assignment to the relative guarantee type packet, assigning the further remaining radio resources to the quantitative guarantee type packet further remaining in the quantitative guarantee type buffer.